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Supply chain pipeline

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Abstract

In the competitive market, Managers are not ready to rely on Greek fable of rabbit and tortoise where “slow and steady” tortoise wins the race. Managers put on high efforts at every stage to satisfy customers’ needs and to equalize with customers’ perceptions. The supply chain management, which covers all departments including transportation, warehousing, inventory control, production planning, order processing, customer service and even information systems, has taken shape of supply chain relationships. Supply chain management and supply chain relationships share a common goal of “adding value” to the product to take customers to a delighted level, much beyond the satisfactory level. Supply chain concept, though is a historical process, but shows a greater impact today and will hopefully obtain more responsibilities tomorrow, thereby creating a supply chain pipeline. Supply chain management has been the part of the extended enterprise and has done better job of serving the ultimate customer. Today’s market is of bearing competitive advantage of adding a bundle of values in the very concept to attain and retain customers for a prolonged time. This paper will give an insight into the concept of transformation of supply chain management to supply chain relationships and will be helpful to marketer to bridge the gap between customers’ expected and perceived needs.

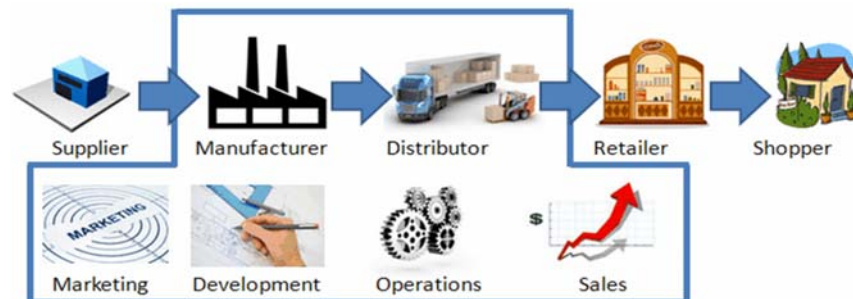
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1. Introduction

Various books have always been in the philosophy that there are two parties of transactions – buyer end and seller end. But in market, it has been seen that transaction is not so simple as it seems. It’s much more than just two parties.

The company performs research on market full of customers. It understands their necessity, their desires by targeting a particular segment of the market. The mindset of the customer is read and bridging the generation gap, new product or service planning is ready to be executed. After the products and services are finished, they need to be provided to the customers effectively and efficiently. In overall process, each step is of equal worth. The same worth is held by the step when the products and services have to be provided to the customers from the producers. The chain from producers to consumers, that is, buying and selling might appear a petty task which actually is not. There are various mediums involved in this step. It is important to know about these mediums so as to execute them properly.

In any company, there is a long chain preceding the end customer. There are one or more supplier(s) who supplies raw materials to the manufacturing department. The raw materials undergo various manufacturing operations to reach to a finished stage. Then there is inventory department, financial department, sales department and so on. Pricing is done for the product. Then taken to the customer again through a chain travelling from inventory to sales to wholesalers to agents to retailers and finally to end customers,



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Supply chain management is what we term. According to Wikipedia, "Supply chain management is the management of flow of goods. It includes movement and storage of raw materials, work-in-process inventory and finished goods from point of origin to point of consumption." Simply stated, "supply chain covers all the procedures of moving raw materials from suppliers to finished products to the end customers."

Supply chain management can be defined as "the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole."

The supply chain management integrates topics from various departments of manufacturing, purchasing, transportation and physical distribution into a unified program. Supply chain management covers all the activities including transportation, inventory, warehousing, inventory control, production planning, sourcing, forecasting, procurement, order processing, and customer services and so on. Importantly, it embodies the information systems so necessary to monitor all of these activities.

Supply Chain Management is an integrating function with primary responsibility for linking major business functions and business processes within and across companies into a cohesive and high-performing business model. Nowadays, the market is no doubt customer-oriented one, so it is the final consumers that pull the whole supply chain and determine the quantity and quality of goods and or services delivered by the supply chain. From a holistic point of view, supply chain management aims to add value in the form of

benefits to the ultimate consumer at the end of the supply chain. In essence, enterprises have to coordinate supply management, operations and integrated logistics into a seamless pipeline and extend its reach beyond its capacity and efforts to meet the consumers' demands.

The concept of Supply Chain Management is based on two core ideas. The first is that practically every product that reaches an end user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain. The second idea is that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their "four walls." Few businesses understood, much less managed, the entire chain of activities that ultimately delivered products to the final customer.

Many scholars have shared their opinions about the supply chain management, some have agreed upon the point that supply chain is the delivery of enhanced customer value through synchronized management of flow of physical goods and associated information from sourcing to consumption. If a business can start measuring customer satisfaction associated with supply chain, then it can link customer satisfaction in terms of profit or revenue growth

There are generally 11 supply chain participants named raw material providers, manufacturers, distributors, re sellers, franchisers, sales representatives, logistic providers, financiers, credit support providers, end users, lessors. Each participant has its own responsibility and importance in the supply chain. This supply chain is exhaustive in nature.

EVOLUTION (WHEN)



There is a direct chain between distributors and the company. The supplier supplies the raw materials and gets paid. Now company need to earn the paid money and the money that has been invested to convert the raw materials into finished product. For this, the company moves to other distributors. Thus these distributors play an important role in gaining profit for the company.

Supply chain management flows can be divided into three main flows:

- The product flow
- The information flow
- The finances flow

The product flow includes the movement of goods from a supplier to a customer, as well as any customer returns or service needs. The information flow involves transmitting orders and updating the status of delivery. The financial flow

consists of credit terms, payment schedules, and consignment and title ownership arrangements.

The goal of supply chain management is

- "adding value"
- "customer enhancement"
- "cost reduction"
- "service enhancement"
- "greater competitive advantage"
- "reduces lead time gap"
- "increased shareholder value"

2. Supply Chain Management Today

Supply chain management is an interlinked departmental management which involves all aspects of physical distribution and materials management. It helps each departmental group to have strong bonds and relationships with each other and with the end customers to attain and retain the profit margin or revenues.

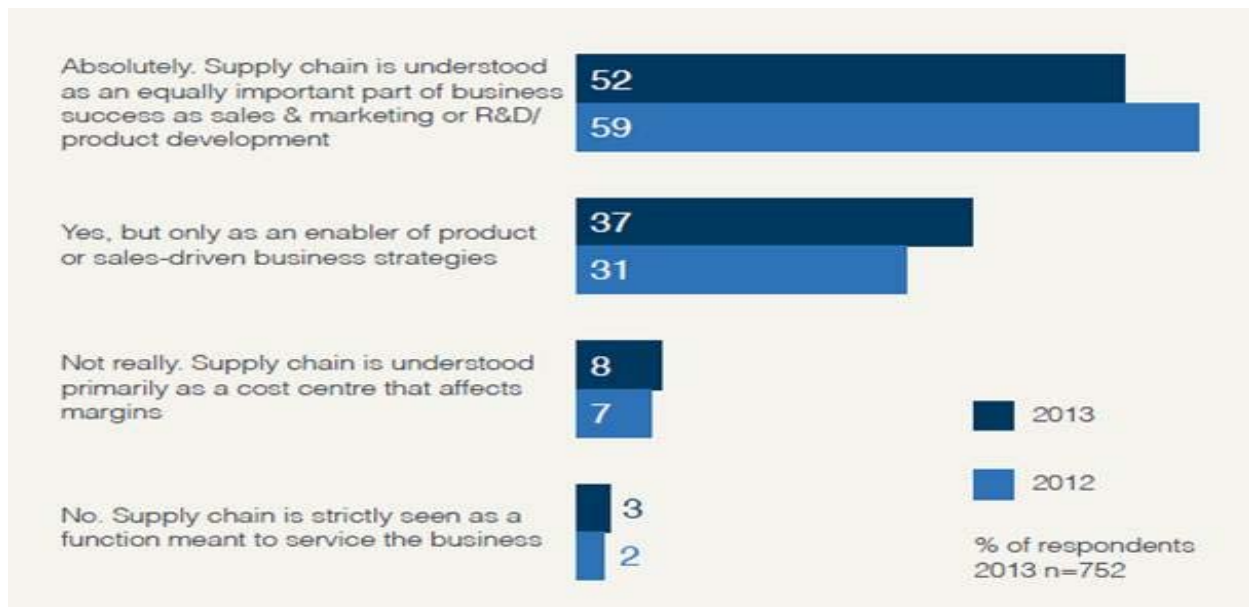
The Traditional Service Model



Till late 1990s, supply chain management had limited control over the organisation. The departmental managers looked down upon the concept of supply chain management. They had the knowledge limited to their respective departments and didn't like to interact or interfere others. They hardly maintained much good relationships with their end customers too. They just were concerned about their own profit but were less bothered about maintaining customer loyalty. After 1990s, with the change in the policies and structure of the market, the Marketers started inclining towards

customers' needs for their profits. The business became closer and stiffer. Supply chain management started to include more than 75 percent of the activities as part of their department functions. Rather, it is expected to wider its range of responsibilities. But still it found most difficult to bridge the following gaps:

- Third-party invoice payment/audit
- Sales forecasting
- Master production planning



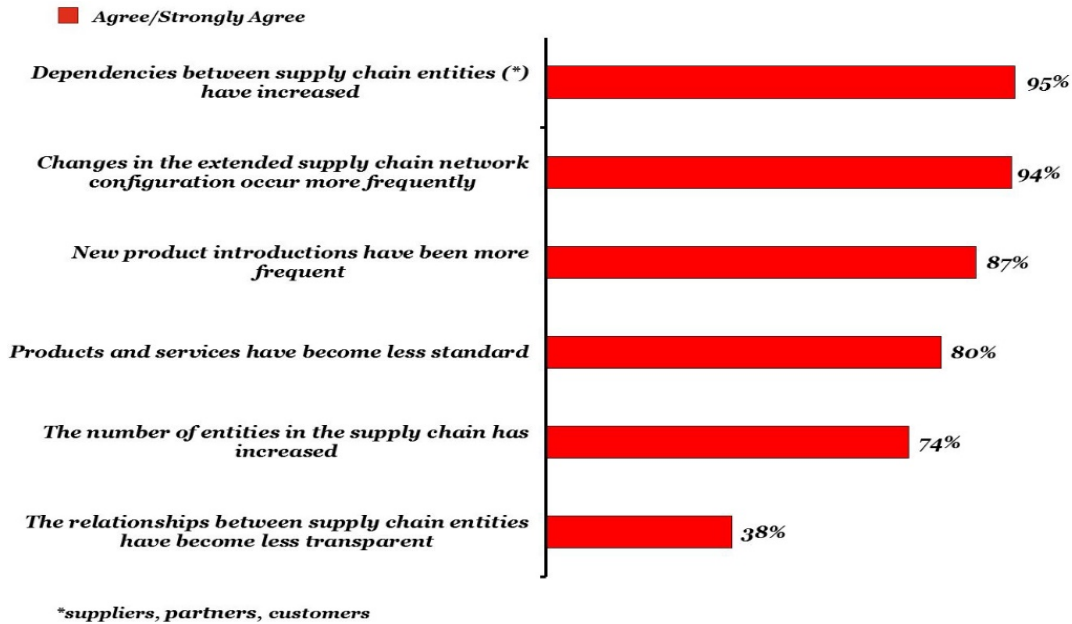
3. Supply Chain Management Tomorrow

For future, supply chain management can be benefited by two major trends: customer service focus and Information Technology (IT).

Supply chain management has started focusing on services being rendered to customers. These services have started shaping a virtual one. The focus of competitive markets is based purely on customers' needs. Customer focus is the orientation of an organization towards serving its client's needs. Having a customer focus is usually a strong

contributor to the overall success of a business and involves ensuring that all aspects of the company put its customer satisfaction first. Also, having a customer focus usually includes maintaining an effective customer relations and service program.

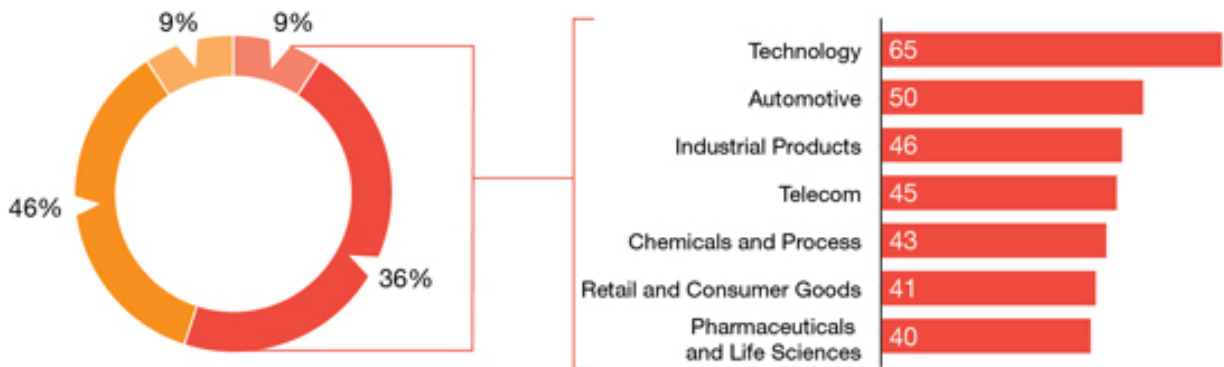
Customer service is a series of activities designed to deliver customer satisfaction. The process of providing customer satisfaction is based on an understanding of what customers want and need.



There are many different aspects which underpin customer satisfaction in a business. These include:

- ease of use – educating customers so that they know how to get the best from the service or product and designing services that are easy to use and access
- personal relationships – building a rapport with customers to make them feel valued and that their needs are important, so that they develop an attachment to the service

- appropriate payment systems – enabling customers to pay in ways that are convenient to them and at appropriate times, such as on satisfactory completion of service
- an effective complaints process – dealing with any Problems or complaints promptly and making sure customers know of the outcome
- After-sales service – checking that customers have had a satisfactory experience and offering other potentially relevant services to extend the customer relationship.



Our supply chain...

- ... supports the company in constantly outperforming the market
- ... is at an advantage to peers
- ... is at parity with industry peers
- ... is at a disadvantage to industry peers

Similarly, supply chain management has been affected by the rising trend of information technology. The field of information technology has a history that militates against putting the customer in the central position of its "business". There are a few major areas in which technology now is able to help provide key advantages to businesses in engendering customer loyalty by improving customer service:

- Websites - Providing areas on your website where customers can answer their own questions or seek answers from others.

- E-mail - Using e-mail as a way to improve customer service and more quickly respond to certain needs or help requests.
- Communications - Unifying communications so that you know that the customer who left a voice mail also sent an e-mail with the same request a few days ago.
- Software - Better managing customer relationships with more sophisticated data-gathering tools, such as customer relationship management software.

4. Supply Chain Management Pipeline

Companies offer a smaller or larger range of products serving different markets, depending on their history and primarily the respective business model. Pipelines are a useful way of differentiating supply chain and selecting the right strategies depending on the market and product properties.

A pipeline is the supply chain for just one part used in a product. In these firms a supply chain for a complex product consists of many pipelines. An example of a pipeline would be a product that begins with rolled steel. A second step in

the pipeline is the cutting process. This is followed by the stamping of the steel into a fender or other component. The component is then assembled into the final product. For example, it may be a fender which is assembled onto a car body.

Aitken *et al.* (2005) suggest the “pipeline” to describe “the specific operational mechanisms and procedures that are employed to service specific product/market contexts” within one supply chain. So one supply chain usually contains several different pipelines.



The real task of supply chain management is to co-ordinate the wider end-to-end pipeline. In-bound logistics is just as critical as the distribution of final product under this paradigm and the emphasis is now on time compression from one end of the supply chain to the other.

A key to improving reliability in logistics processes is enhanced pipeline visibility. It is often the case that there is limited visibility of downstream demand at the end of the pipeline. If means can be found of opening up the pipeline so that there is clear end-to-end visibility then reliability of response will inevitably improve.

Freight transportation industry comprises establishments primarily engaged in transporting and warehousing goods as well as providing logistics services. It includes the four transportation modes (trucking, rail, air and marine) as well as Postal Services, Couriers and Messengers, and Warehousing and Storage. It has undergone a revolutionary change during the last decade. As deregulation spread to all modes of transport, the number of surviving companies declined. Carriers unprotected by regulation discovered they could not differentiate themselves from the competition on price alone. Successful transportation companies must provide prompt pickup, excellent customer service, and swift, complete and damage-free delivery. Hewlett Packard is a good example of a company that has restructured its organisation in accordance with freight transportation industry.

Customer service provides a significant opportunity to differentiate an otherwise standard product and an opportunity to tailor the company’s offering to meet specific customer requirements. After the change in market structure, companies moved from selling to marketing technique. It changed its mindset from only profit to customer satisfaction

plus profit. The corporates understood the concept of competitive advantage and used it as a tool to measure efficiency in the market by attaining and retaining customer loyalty. They used competitive advantage as a cue for gaining customer loyalty. Reliability and responsiveness have made it much more enhanced. The growth of Just-in-Time and Quick Response inventory management and third-party Supply Chain Management requires all participants in the Supply Chain Management chain to consider shorter cycle time a competitive advantage. They attempt to improve customer service by eliminating waste from the system in all of its forms including wasted time.

Integrating the customer into the management of the supply chain has several advantages. First, integration improves the flow of information throughout the supply chain. Customer information is more than data. Customer information is data that has been analyzed in some manner so that there is insight into the needs of the customer. In the typical supply chain the further the members of a chain are from the end customer, the less understanding these members have of the needs of the customer. This increases the supply chain member’s uncertainty and complicates the planning. Firms respond to uncertainty differently. Some firms may increase inventory while others may increase lead times. Either action reduces their ability to respond to their customers. As uncertainty is reduced, firms are able to develop plans with shorter lead times. By improving the information flow in the supply chain, firms throughout the chain have less uncertainty to resolve during the planning process. This allows all the firms in the supply chain to reduce inventory and consequently to shorten their lead times while reducing their costs. This, in turn, allows the chain to respond to their customer faster. A second advantage of integrating the

customer into the supply chain is that this integrates the product development function with the other functions in the firm. This integration allows the product development staff to communicate more with the customer both internally and externally to the firm, which decreases the firm's response time to the customer's needs and tends to reduce product development time.

Yard and dock management systems ensure the delivery of the right equipment to the right location at the right time. According to Aberdeen Group's most recent survey of supply chain executives, 80% of companies are not only involved in the transformation of their supply chains, but expecting to gain a ROI on their technology initiatives. A key transformation driver is supply chain responsiveness, which means that supply chain visibility and agility combine to deliver a responsive supply chain that can quickly identify and react to changes in supply, demand and execution threats/opportunities.

Since suppliers are located all over the world, it is essential to integrate the activities both inside and outside of an organization. This requires an integrated information system (IS) for sharing information on various value-adding activities along the supply chain. IT is like a nerve system for SCM.

5. Conclusion

Supply chain management is needed for various reasons: improving operations, better outsourcing, increasing profits, enhancing customer satisfaction, generating quality outcomes, tackling competitive pressures, increasing globalization, increasing importance of E-commerce, and growing complexity of supply chains. Supply chains are relatively easy to define for manufacturing industries, where each participant in the chain receives inputs from a set of suppliers, processes these inputs, and delivers them to a different set of customers.

Supply chain management has gradually been embraced as a proven managerial approach to achieving sustainable profits and growth. This is accomplished primarily by focusing on the whole Supply chain management process to deliver the right products or services, in the right quantity, to the right place, at the right time and with maximum benefits.

Supply chain management often is the basis for a firm's competitive strategy, which is driven by increased outsourcing, expanding global operations, and heightened need for logistics customer service. Not only has managing supply chain costs become more important, as these costs are used in tradeoff with production costs, but supply chain strategy is increasingly viewed as a source for contributing to the revenues of the firm.

Key challenges for the future will be to better estimate the revenue contributions from the customer service levels generated by the supply chain and effectively managing the scope of the supply channel as envisioned in supply chain management. Because of the difficulty of estimation, too little attention has been given to the revenue contribution that the supply chain can make to the overall sales of the firm. It is an area of much needed research.

But without a doubt, supply chain management will continue to grow in importance as companies continue to pursue outsourcing, expand their international operations, and do business in a global economic environment. Whatever the field is called that manages product flows, which at the moment is supply chain management, the trend is set.

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